CLAIMS

1. Purified polypeptide, derivative or polypeptide fragment of the said biologically active purified polypeptide, comprising an amino acid sequence selected from SEQ ID No. 2, No. 4, No. 6 and No. 8.

2. Purified polypeptide, derivative or biologically active polypeptide fragment of the said purified polypeptide, according to Claim 1, comprising the amino acid sequence SEQ ID No. 8, the said polypeptide being designated by "POP-66".

3. Isolated nucleotide sequence, comprising:

- a sequence selected from SEQ ID No. 1, No. 3, No. 5 and No. 7 coding for a polypeptide of amino acid sequence SEQ ID No. 2, No. 4, No. 6 and No. 8 respectively;

- a sequence derived from a sequence selected from SEQ ID No. 1, No. 3, No. 5 and No. 7 on account of the degeneracy of the genetic code, of mutation, of deletion or of insertion;

- or a sequence capable of hybridizing specifically with the sequence SEQ ID No. 1, No. 3, No. 5 or No. 7.

4. Nucleotide sequence according to Claim 3, comprising the nucleotide sequence SEQ ID No. 7 coding for a polypeptide according to Claim 2.

5. Cloning and/or expression vector containing a nucleic acid sequence according to one of Claims 3 and 4.

6. Host cell transfected by a vector according to Claim 5.

7. Mono- or polyclonal antibodies obtained from a purified polypeptide according to one of Claims 1 and 2, a derivative or a biologically active polypeptide fragment of the said purified polypeptide, as well as the fragments, the chimeric antibodies or the immunoconjugates of the said mono- or polyclonal antibodies.

8. Composition useful for the diagnosis of paraneoplastic neurological syndromes and/or for the early diagnosis of the formation of tumours, characterized in that it comprises a purified POP-66 polypeptide, derivative or biologically active polypeptide fragment of POP-66 according to Claim 2.

9. Use of a purified POP-66 polypeptide, derivative or biologically active polypeptide fragment of POP-66 according to Claim 2 or of a nucleotide sequence according to Claim 4 for detecting the presence of anti-CV2 antibodies in a biological sample.

10. Use of mono- or polyclonal antibodies or their fragments, chimeric or immunoconjugated antibodies according to Claim 7 for the purification or the detection of a corresponding ULIP protein in a biological sample.

11. Use of antibodies directed against a protein of the ULIP family for the demonstration of a ULIP protein in neoplasms and paraneoplastic neurological syndromes, for diagnostic purposes.

12. Use according to Claim 11, the antibodies being monoclonal antibodies obtained from polyclonal anti-CV2 serum of patients.

13. Method for the diagnosis of paraneoplastic neurological syndromes and/or for the early diagnosis of the formation of cancerous tumours, characterized in that auto-antibodies directed against a POP-66 protein are demonstrated in a blood sample taken from an individual by

- the contacting of a blood sample taken from an individual with a purified polypeptide (POP-66), derivative or biologically active polypeptide fragment of POP-66 according to Claim 2, optionally attached to a support under conditions allowing the formation of specific immunological complexes between the said polypeptide and the auto-antibodies optionally present in the blood sample, and

- the detection of the specific immunological complexes optionally formed.

14. Kit for the diagnosis of paraneoplastic neurological syndromes and for the early diagnosis of the formation of tumours from a biological sample, comprising:

- at least one purified POP-66 polypeptide, derivative or biologically active polypeptide fragment of POP-66, according to Claim 2, optionally attached to a support,

- means of visualization of the formation of specific antigen/antibody complexes between an anti-POP-66 auto-antibody and the said purified POP-66 polypeptide, derivative or polypeptide fragment and/or means of quantification of these complexes.

15. Pharmaceutical composition, comprising at least one purified protein of the ULIP family, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said protein, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said protein, or an antibody directed against the said protein, combined with a pharmaceutically acceptable vehicle.

16. Pharmaceutical composition according to Claim 15, comprising at least one purified POP-66 polypeptide according to Claim 2, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said polypeptide, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said polypeptide, or an antibody directed against the said polypeptide, combined with a pharmaceutically acceptable vehicle.

17. Use of a purified protein of the ULIP family, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said protein, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said protein, or an antibody directed against the said protein, for the

production of a medicament intended for treating neurodegenerative illnesses and neoplasms.

18. Method of treatment of neurodegenerative illnesses and neoplasms, comprising the administration to a subject requiring such a treatment of a therapeutically efficacious quantity of a purified protein of the ULIP family, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said protein, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said protein, or an antibody directed against the said protein, combined with a pharmaceutically acceptable vehicle.

CLAIMS

1. Purified polypeptide comprising an amino acid sequence selected from SEQ ID No. 2, No. 4, No. 6 and No. 8.

2. Purified polypeptide according to Claim 1, comprising the amino acid sequence SEQ ID No. 8, the said polypeptide being designated by "POP-66".

3. Isolated nucleotide acid comprising a sequence coding for a polypeptide of amino acid sequence SEQ ID No. 2, No. 4, No. 6 or No. 8.

4. Nucleic acid according to Claim 3, comprising a sequence selected from SEQ ID No. 1, No. 3, No. 5 or No. 7, respectively coding for a polypeptide of amino acid sequence SEQ ID No. 2, No. 4, No. 6 or No. 8.

5. Nucleic acid according to Claim 4, comprising the nucleotide sequence SEQ ID No. 7 coding for a polypeptide according to Claim 2.

6. Cloning and/or expression vector containing a nucleic acid sequence according to one of Claims 3 to 5.

7. Host cell transfected by a vector according to Claim 6.

8. Mono- or polyclonal antibodies obtained from a purified polypeptide according to one of Claims 1 and 2, as well as the fragments, the chimeric antibodies or the immunoconjugates of the said mono- or polyclonal antibodies.

9. Composition useful for the diagnosis of paraneoplastic neurological syndromes and/or for the early diagnosis of the formation of tumours, characterized in that it comprises a purified POP-66 polypeptide, according to Claim 2.

10. Use of a purified POP-66 polypeptide according to Claim 2, derivative or biologically active polypeptide fragment of POP-66, or of a nucleic acid according to Claim 5 for detecting the presence of anti-CV2 antibodies in a biological sample.

11. Use of mono- or polyclonal antibodies or their fragments, chimeric or immunoconjugated antibodies according to Claim 8 for the purification or the detection of a corresponding ULIP protein in a biological sample.

12. Use of antibodies directed against a protein of the ULIP family for the demonstration of a ULIP protein in neoplasms and paraneoplastic neurological syndromes, for diagnostic purposes.

13. Use according to Claim 12, the antibodies being monoclonal antibodies obtained from polyclonal anti-CV2 serum of patients.

14. Method for the diagnosis of paraneoplastic neurological syndromes and/or for the early diagnosis of the formation of cancerous tumours, characterized in that auto-antibodies directed against a POP-66 protein are demonstrated in a blood sample taken from an individual by

- the contacting of a blood sample taken from an individual with a purified polypeptide (POP-66) according to Claim 2, derivative or biologically active polypeptide fragment of POP-66, optionally attached to a support under conditions allowing the formation of specific immunological complexes between the said polypeptide and the auto-antibodies optionally present in the blood sample, and

- the detection of the specific immunological complexes optionally formed.

15. Kit for the diagnosis of paraneoplastic neurological syndromes and for the early diagnosis of the formation of tumours from a biological sample, comprising:

- at least one purified POP-66, according to Claim 2, derivative or biologically active polypeptide fragment of POP-66 polypeptide, optionally attached to a support,

- means of visualization of the formation of specific antigen/antibody complexes between an anti-POP-66 auto-antibody and the said purified POP-66 polypeptide, derivative or polypeptide fragment and/or means of quantification of these complexes.

16. Pharmaceutical composition, comprising at least one purified protein of the ULIP family, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said protein, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said protein, or an antibody directed against the said protein, combined with a pharmaceutically acceptable vehicle.

17. Pharmaceutical composition according to Claim 15, comprising at least one purified POP-66 polypeptide according to Claim 2, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said polypeptide, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said polypeptide, or an antibody directed against the said polypeptide, combined with a pharmaceutically acceptable vehicle.

18. Use of a purified protein of the ULIP family, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said protein, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said protein, or an antibody directed against the said protein, for the production of a medicament intended for treating neurodegenerative illnesses and neoplasms.

19. Method of treatment of neurodegenerative illnesses and neoplasms, comprising the administration to a subject requiring such a treatment of a therapeutically efficacious quantity of a purified

protein of the ULIP family, polypeptide fragment or biologically active derivative of this, a nucleotide sequence or nucleotide sequence fragment coding for the said protein, an antisense sequence capable of hybridizing specifically with a nucleotide sequence coding for the said protein, or an antibody directed against the said protein, combined with a pharmaceutically acceptable vehicle.

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